

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

NATIONAL TECHNICAL UNIVERSITY

«KHARKIV POLYTECHNIC INSTITUTE»

Department of Department of Pedagogy and Psychology of Social System  
Management named after I. A. Ziaziun

## **SELF-STUDY GUIDELINES**

**for the «Didactic systems and educational technologies in higher  
institutions» course**

for full-time students of the second (Master's) level of  
higher education,  
specialty 011 «Educational, pedagogical sciences»,  
educational program «Pedagogy of High School»

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2025

## Teaching materials for lectures

### Plan of lecture classes

Topic	Number of hours
Introduction to the discipline. Didactic systems of Higher Education	4
Didactic technologies in Higher Education	4
Laws, regularities and principles of education	4
Types and styles of learning	4
Specialist training program and educational plans	4
Forms and methods of training in Higher Education	4
Problem-oriented training as an effective technology in the formation of leadership qualities of a future specialist	4
Self-guided students' work as an effective technology in the formation of leadership qualities of the future specialist	4

#### **Topic 1. Introduction to the discipline. Didactic systems of Higher Education**

Concept of Didactics in Higher Education. Stages of the learning process

Recommended reading:

1. Binnewies, S., and Wang, Z. (2019). "Challenges of student equity and engagement in a HyFlex course," in Blended Learning Designs in STEM Higher Education, eds C. N. Allan, C. Campbell, and J. Crough (Singapore: Springer), 209–230. doi: 10.1007/978-981-13-6982-7\_12 URL : [https://link.springer.com/chapter/10.1007/978-981-13-6982-7\\_12](https://link.springer.com/chapter/10.1007/978-981-13-6982-7_12)
2. Asderaki, F. (2019). Researching the European Higher Education Area external effectiveness: regime complexity and interplay. – Eur J. High. Educ., 9(1), pp. 40-57. <https://www.tandfonline.com/doi/abs/10.1080/21568235.2018.1562951>
3. Hodges C., Moore S., Lockee B., Trust T., Bond A. (2020). The difference between emergency remote teaching and online learning. Educause Review. Available online at: <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning> (accessed December 2, 2020)

#### **Topic 2. Didactic technologies in Higher Education**

Technological approach to the implementation of educational activities in higher education. The structure of pedagogical technology. Types of pedagogical technologies. Technologies of modular training. Distance learning technology.

Recommended reading:

1. Awe, O.A. And Church, E.M. (2020), "Project flexibility and creativity: the moderating role of training utility", *Management Decision*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/MD-02-2020-0226>
2. González-Zamar, Mariana-Daniela & Abad-Segura, E. & Meneses, E. & Gómez G. (2020) *Managing ICT for Sustainable Education: Research Analysis in the Context of Higher Education*. Sustainability. 12. 8254. <http://doi.org/10.3390/su12198254>

### **Topic 3. Laws, regularities and principles of education**

System of learning principles. Subjective regularities of the learning process.

Recommended reading:

1. Abdullayeva, D. (2021). Independent Education in Higher Education. In: International conference on multidisciplinary research and innovative technologies (pp. 217-220). Ankara: 6th International Symposium on Multidisciplinary Studies and Innovative Technologies. Retrieved from <http://mrit.academiascience.org/index.php/mrit/article/view/129>
2. Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the domain of learning. *Smart Learning Environments*, 7(1), 1-16. *Journal for Educators, Teachers and Trainers JETT*, Vol. 13 (3); ISSN: 1989-9572 <https://doi.org/10.1186/s40561-020-00118-7>
3. Cattaneo, A. A., Antonietti, C., & Rauseo, M. (2022). How digitalised are vocational teachers? Assessing digital competence in vocational education and looking at its underlying factors. *Computers & Education*, 176, 104358. <https://doi.org/10.1016/j.compedu.2021.104358>

### **Topic 4. Types and styles of learning**

Explanatory and illustrative teaching. Programmed training. Project training. Reproductive learning style. Creative learning style. Emotional and valuable learning style.

Recommended reading:

1. Dawe, N., Romkey, L., Bilton, A., & Khan, R. (2021). A review of how lifelong learning is planned and enacted in Canadian engineering programs. *Proceedings of the Canadian Engineering Education Association (CEEA) (Paper 168)*. Retrieved from <https://ojs.library.queensu.ca/index.php/PCEEA/article/view/14950>
2. Didro, D. (2019). Pedagogical bases and technologies for professional development of personality. *European Journal of Research and Reflection in Educational Sciences*, 7(10), 79-83. Retrieved from <http://www.idpublications.org/wp->

[content/uploads/2019/09/Full-Paper-PEDAGOGICALBASES-AND-TECHNOLOGIES-FOR-PROFESSIONAL-DEVELOPMENT-OF-PERSONALITY.pdf](https://content/uploads/2019/09/Full-Paper-PEDAGOGICALBASES-AND-TECHNOLOGIES-FOR-PROFESSIONAL-DEVELOPMENT-OF-PERSONALITY.pdf)

3. Dutra, M. D. A., Therrien, J., & Nóbrega-Therrien, S. M. (2021). Temporalities in the life and selftraining of a professor-researcher. *Educate in Magazine*, 37, e75571. Retrieved from <https://revistas.ufpr.br/educar/article/view/75571>

### **Topic 5. Special training program and educational plans**

Content of education in institutions of higher education. Normative documents defining the content of education. Functions of the educational discipline program. Different types of educational literature.

Recommended reading:

1. Kapucu, M. S., & Turk, H. (2020). Innovative Technologies in Science Education and New Approaches Technology. *Muhammad Zayyad*, 16, 16-32. Retrieved from <https://files.eric.ed.gov/fulltext/ED611833.pdf#page=20>

2. Sokol Y. I. Educational leadership connecting the world [Electronic resource] : educational manual for full-time students / Yevhen Sokol, Joseph Mukuni, Olena Lapuzina. – Electronic text data. – Kharkiv : NTU "KhPI", 2024. – 164 p. – URI: <https://repository.kpi.kharkov.ua/handle/KhPI-Press/76730>

3. Romanovskij O. Leadership in teaching activities [Electronic resource] : educational guide / O. Romanovskij, O. Lapuzina ; National Technical University "Kharkiv Polytechnic Institute". – Electronic text data. – Kharkiv, 2023. – 140 p.

<https://repository.kpi.kharkov.ua/handle/KhPI-Press/67697>

<https://repository.kpi.kharkov.ua/handle/KhPI-Press/68750>

### **Topic 6. Forms and methods of training in Higher Education**

Organizational forms of training in higher education institutions. Methods and technologies of education.

Recommended reading:

1. Brady, S. T., Hard, B. M., & Gross, J. J. (2018). Reappraising test anxiety increases academic performance of first-year college students. *Journal of Educational Psychology*, 110(3), 395–406. <https://doi.org/10.1037/edu0000219>.

2. Huisman, J. (2024). The use of methods: are higher education scholars lazy or insufficiently skilled?\*. *Higher Education Research & Development*, 43(1), 260–266. <https://doi.org/10.1080/07294360.2024.2305961>

3. Sotola, L.K. & Crede, M. (2020). Regarding class quizzes: a meta-analytic synthesis of studies on the relationship between frequent low stakes testing and class performance. *Educational Psychology Review*, 10.1007/s10648-020-09563-9. <https://www.jstor.org/stable/48750312>

## **Topic 7. Problem-oriented training as an effective technology in the formation of leadership qualities of a future specialist**

Methodology for the development of Problem-oriented training.

Recommended reading:

1. Awe, O.A. and Church, E.M. (2021), "Project flexibility and creativity: the moderating role of training utility", *Management Decision*, Vol. 59 No. 9, pp. 2077-2100. <https://doi.org/10.1108/MD-02-2020-0226>
2. González-Zamar, Mariana-Daniela & Abad-Segura, E. & Meneses, E. & Gómez G. (2020) *Managing ICT for Sustainable Education: Research Analysis in the Context of Higher Education*. Sustainability. 12. 8254. DOI: <http://doi.org/10.3390/su12198254>
3. Marek, M. & Wu, Wen-Chi & Chew, Chiou Sheng. (2020). Teacher Experiences in Converting Classes to Distance Learning in the COVID-19 Pandemic. *International Journal of Distance Education Technologies*. 19. 40-60. DOI: <https://doi.org/10.4018/IJDET.20210101.oa3>
4. Binnewies, S., Wang, Z. (2019). Challenges of Student Equity and Engagement in a HyFlex Course. In: Allan, C., Campbell, C., Crough, J. (eds) *Blended Learning Designs in STEM Higher Education*. Springer, Singapore. [https://doi.org/10.1007/978-981-13-6982-7\\_12](https://doi.org/10.1007/978-981-13-6982-7_12)

## **Topic 8. Self-guided students' work as an effective technology in the formation of leadership qualities of the future specialist**

Methodology for the development of Self-guided students' work.

Recommended reading:

1. Anwar, A., Chaudary, R., Najihah, N. A., A., Athirah, N. A. A., Sakinah, N. A. M. E., Arisya, N. A., ..., & Kee, D. M. H. (2024). The role of professional training in developing leadership skills among Information Technology sector employees. *International Journal of Tourism & Hospitality in Asia Pasific*, 7(3), 344-359. DOI: <https://doi.org/10.32535/ijthap.v7i3.3572>
2. Chethana, K. M., & Noronha, S. D. (2023). A review of the strategies used in the it sector for employee training and development. *International Journal of Case Studies in Business, IT and Education*, 7(2), 141-155. <https://doi.org/10.5281/zenodo.7876687>
3. Fickry, A., Kee, D. M. H., Sallehuddin, M., Nabila, N., & Nuraishah, S. (2020). Leadership and organizational success: A study of AirAsia. *Advances in Global Economy and Business Journal*, 1(1), 12-25 DOI: <https://doi.org/10.51748/agebj.v1i1.4>
4. Farid, M. A. B. M., Kee, D. M. H., Mohamad, M. S. B., Hameem, M. S. U. B., & Zulkafli, A. Z. B. (2020). The role of leadership and leaders' behavioral characteristic on employees: A study of Petronas Berhad. *International Journal of Applied Business and International Management*, 5(3), 63-68. <https://doi.org/10.32535/ijabim.v5i3.982>
5. Islam, T., Hussain, D., Ahmed, I., & Sadiq, M. (2021). Ethical leadership and environment specific discretionary behaviour: The mediating role of green human

resource management and moderating role of individual green values. *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de L'Administration*, 38(4), 442-459. <https://doi/10.1002/cjas>.

6. Kee, D. M. H., Rahman, N. A., & Tan, A. W. (2020). The impact of transformational leadership and team innovation on team performance: Empirical evidence from Malaysia. *Journal of Management & Marketing Review*, 5(2), 99–106. [https://doi.org/10.35609/jmmr.2020.5.2\(2\)](https://doi.org/10.35609/jmmr.2020.5.2(2))

7. Koziół-Nadolna, K. (2020). The role of a leader in stimulating innovation in an organization. *Administrative Sciences*, 10(3), 59. <https://doi.org/10.3390/admsci10030059>

8. Manda, H. M., & Abidin, A. Z. (2023). The role of leadership in managing information technology change and its impact on organisational human resources. *Technology and Society Perspectives*, 1(3), 112-121. <https://doi.org/10.61100/tacit.v1i3.59>

9. Qian, C., & Kee, D. M. H. (2023). Exploring the path to enhance employee creativity in Chinese MSMEs: The influence of individual and team learning orientation, transformational leadership, and creative self-efficacy. *Information*, 14(8), 449. <https://doi.org/10.3390/info14080449>

10. Sampaio, N., & Sampaio, N. (2024, May 28). Why leadership skills are beneficial for your career. IMD Business School for Management and Leadership Courses. <https://www.imd.org/reflections/leadership-skills-training-program/>

## **Methodological materials to ensure students' self-study**

Students' self-study (SSS) occupies a leading place in the system of modern higher education. Of all the types of learning activities, the SSS largely ensures the formation of independence as a leading trait of a student's personality.

Independent work completes the tasks of all other types of learning activities. After all, knowledge that has not become the object of one's own activity cannot be considered a person's real property. Therefore, SSS has educational, personal and social significance.

Learning activity is characterized by subjectivity, activity, subject matter, purposefulness, structure and content.

Special features of independent learning activities are the following:

- changes in the subject itself;
- dependence on the student's level of development and reliance on the achieved level of development;
- mastering general methods of action and scientific concepts;
- precedence of general methods of action to solving problems;
- dependence of changes in mental properties and behavior of students on the results of their own actions.

*Performing self-study involves:*

1. Study of educational literature using the university library and the Internet.
2. Study of educational material given for self-study.
3. Mastering knowledge, types and methods of activity in a particular subject area.
4. Self-checking of the acquired knowledge with the help of the questions presented.

If necessary, you can get individual advice from a teacher on how to perform self-study. To do this, the department develops a schedule of teacher consultations each semester.

### **Questions for self-study**

1. Identify the basic rules of Didactics.
2. Explain the essence of the traditional education system.
3. Describe main features of pedagogical technology.

4. Analyze the features of a written report and an abstract.
5. Describe the personally oriented learning technology.
6. Explain the essence of Maria Montessori's special trend in pedagogy.
7. Identify the basic concepts of successful independent student's work.
8. Explain the concept of "learning style".
9. Explain the essence of the Waldorf school.
10. Name the essence of the regularities of the learning process.

### **Literature for self-study:**

1. Teoh, K. B., Cordova, M., Hor, S. N., Lim, C. H., Yeoh, L. K., Madhu, A., ... & Chuah, Y. J. (2021). The factors of employee performance: A study of SearchNEasy. *Asia Pacific Journal of Management and Education*, 4(1), 82-96.  
<https://doi.org/10.32535/apjme.v4i1.1053>
2. Torlak, N. G., Demir, A., & Budur, T. (2021). Decision-making, leadership and performance links in private education institutes. *Rajagiri Management Journal*, 16(1), 63–85. <https://doi.org/10.1108/ramj-10-2020-0061>
3. Yang, C., Zhang, W., Wu, S., Kee, D. M. H., Liu, P., & Deng, H. (2021). Influence of chief executive officer servant leadership on middle managers' voice behavior. *Social Behavior and Personality: An International Journal*, 49(5), 1-13.  
<https://doi.org/10.2224/sbp.9945>
4. Attaran, M., Attaran, S., & Kirkland, D. (2020). *Handbook of Research on Social and Organizational Dynamics in the Digital Era* (E. C. Idemudia, Ed.; Vol. 18). IGI Global.  
<https://doi.org/10.4018/978-1-5225-8933-4>
5. The Role of Social Media in Shaping Public Opinion and Its Influence on Economic Decisions. *Technology and Society Perspectives (TACIT)*, 1(1), 35–44.  
<https://journal.literasisainsnusan-tara.com/index.php/tacit/article/view/37>
6. Azzaakiyyah, H. K. (2023). The Impact of Social Media Use on Social Interaction in Contemporary Society. *Technology and Society Perspectives (TACIT)*, 1(1), 1–9.  
<https://journal.literasisainsnantara.com/in-dex.php/tacit/article/view/33>

## Methodological recommendations/teaching materials for conducting practical classes

### Plan of practical classes

Topic	Number of hours
The essence of students' educational activities	2
Concepts of learning theory. Interactive, innovative and information technologies of learning and various didactic systems of learning in higher education	2
External criteria for the effectiveness of the learning process. Tasks of higher school didactics	2
Basic issues of distance learning technology. Characteristics of different types and styles of learning	2
Laws of learning. Patterns of learning. External and internal patterns of learning	2
The structure and types of pedagogical technology. System of learning principles. Distance learning technology. The principle of modularity	2
Dogmatic teaching. Explanatory and illustrative teaching. Types of lectures and seminars in higher education institutions	2
Problem-based learning. Distance learning. Reproductive learning style. Creative learning style	2

### Practical tasks for the classes

1. Prepare a speech (3 minutes) about The relevance of didactics in higher education for the training of professionals of the future.
2. Analyze the issue of didactic teaching.
3. Analyze the literature of didactic teaching and make a presentation.
4. Prepare a speech on one of the topics of your choice:
5. What educational platforms or open educational resources do you know? What, in your opinion, are their advantages?
6. The level of knowledge and skills which is necessary to use information technologies for distance teaching.
7. The most relevant forms of distance teaching and learning.
8. The main problems and difficulties due to the transition of traditional classroom teaching and learning to the distance one.

9. The hierarchy of positive changes connected with the transition of traditional classroom teaching and learning to the distance one.

### **Recommended reading:**

1. Beardsley, M., Albó, L., Aragón, P., & Hernández-Leo, D. (2021). Emergency Education Effects on Teacher Abilities and Motivation to Use Digital Technologies. *British Journal of Educational Technology*, 52, 1455-1477. <https://doi.org/10.1111/bjet.13101>
2. Shuo Zhao, Shihao Hupang. Digital Education of British Universities in the Post-Pandemic Era. *Open Journal of Social Sciences* Vol.11 No.10, October 31, 2023 DOI: 10.4236/jss.2023.1110042
3. Aikaterina Koti. The Use of AR in Secondary Education: Educational Augmented Reality Material to Enhance Students' Digital and Social Skills. *Creative Education* Vol.14 No.13, December 28, 2023 DOI: 10.4236/ce.2023.1413173
4. Amal Ibrahim Khalil, Neama Yousef Hantira. Special Education Teachers' Knowledge and Attitudes toward the Use of Assistive Technology for Disabled Children Management: Impact of an Educational Intervention. *Creative Education* Vol.13 No.3, March 22, 2022 DOI: 10.4236/ce.2022.133054
5. Jonsdottir, I. J., & Kristinsson, K. (2020). Supervisors' Active-Empathetic Listening as an Important Antecedent of Work Engagement. *International Journal of Environmental Research and Public Health*, 17(21), 7976. <https://doi.org/10.3390/ijerph17217976>
6. Kadhum, A. H., Muttar, L. A., & Khait, A. A. (2023). The Role of Visionary Leadership in Achieving Strategic Change Through Strategic Improvisation. *South Asian Journal Of Social Science & Humanities*, 4(4), 12–50. <https://doi.org/10.48165/sajssh.2023.4402>
7. Karneli, O. (2023). The Role of Adhocratic Leadership in Facing the Changing Business Environment. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 77–83. <https://doi.org/10.61100/ad-man.v1i2.26>
8. Konopik, J., Jahn, C., Schuster, T., Hoßbach, N., & Pflaum, A. (2022). Mastering the digital transformation through organizational capabilities: A conceptual framework. *Digital Business*, 2(2), 100019. <https://doi.org/10.1016/j.digbus.2021.100019>

### **Methodological instructions/recommendations for completing an individual assignment**

#### General requirements for the abstract

- Language – English.
- Style – scientific.
- Sequence – logical.
- Page format – A4.

- Font and size – Times New Roman, 14.
- Line spacing – one and a half.
- Margins: left margin – 30 mm, right margin – 15 mm, top and bottom margin – 20 mm.
- Simple outline – 1-2 sections.
- The list of references should include about 10 titles.
- Section headings are written in CAPITAL letters.
- Subsection titles are written in lowercase letters (except for the first one).

The length of an abstract is usually 7-15 pages, in some cases up to 20-30 pages. A standard abstract traditionally consists of several parts: title page; table of contents; introduction; main body; conclusion; and references.

**The table of contents** contains a list of sections, subsections, and page numbers to them. Often, instead of the table of contents, you are required to write an outline. The plan can be simple, when you need to list the names of the paragraphs of the essay in a numbered list, and complex, when in addition to the paragraphs, you also indicate their subparagraphs.

**An introduction** usually lasts a page and a half. Its main purpose is to introduce the reader to the essence of the problem. The introduction justifies the choice of the topic (why it is important) and its relevance. We outline the goals and objectives of the work. If necessary, make a brief review of the sources used. If you can't write an introduction at first, you can do it after writing the conclusion, when all your thoughts are systematized and finalized.

**The main part.** Before you start writing the main body, you need to decide on the titles of chapters and paragraphs – the basic requirements for an essay. Next, you should build a chain of presentation so as not to disrupt the sequence of thoughts and not to deviate from the given topic. Highlight the main aspects as much as possible; the main part of the essay should outline the main concepts set forth in the sources. Be sure to cite the author if you use quotations: this is an indicator of your academic integrity. When citing, make references. There are several options for their design, for example, footnotes can be placed at the end of the page, or they can be indicated briefly in square brackets

with the number of the source in the bibliography and the original page of the quote like [10, p. 355], so it is better to specify their design in advance.

**Conclusion.** The conclusion summarizes the main topic in a concise form and presents your own view of the problem and its solution.

**A list of references or bibliography** is a systematic compilation of a list of sources used. In other words, it is the information that even an outsider can use to find a particular book. The list is compiled in alphabetical order on the last page.

The topic of the abstract can be chosen by the student in accordance with the principle of academic freedom, in consultation with the teacher, and within the framework of the educational component.

### **Approximate topics of an abstract:**

1. Innovative Teaching Methods: Exploring the effectiveness of active learning strategies in higher education classrooms.

2. Technology Integration: The role of digital tools and online platforms in enhancing student engagement and learning outcomes.

3. Assessment Practices: Evaluating formative vs. summative assessment techniques in promoting deeper understanding among students.

4. Inclusive Pedagogy: Strategies for creating an inclusive learning environment that accommodates diverse learning needs.

5. Interdisciplinary Approaches: The benefits of interdisciplinary teaching in fostering critical thinking and problem-solving skills.

6. Student-Centered Learning: The impact of student-centered approaches on motivation and academic performance.

7. Collaborative Learning: Investigating the effects of group work and peer-to-peer learning on student success.

8. Curriculum Design: Best practices in curriculum development that align with contemporary educational standards and industry needs.

9. Teaching Philosophy: The influence of educators' teaching philosophies on classroom dynamics and student engagement.

10. Feedback Mechanisms: The importance of timely and constructive feedback in the learning process.

11. Global Perspectives: Examining the challenges and opportunities of teaching international students in higher education settings.

12. Experiential Learning: The role of internships, co-ops, and real-world projects in enhancing academic learning.

13. Faculty Development: Programs aimed at improving teaching skills among faculty members in higher education institutions.

14. Learning Analytics: Utilizing data analytics to inform teaching practices and improve student outcomes.

15. Sustainability in Education: Integrating sustainability concepts into higher education curricula to prepare students for future challenges.

### **Teaching materials for current, intermediate and final control**

1. Analyze the concept of Didactics in Higher Education and provide its main characteristics.
2. Name and briefly describe the requirements for didactic teaching.
3. Define what is the main purpose, task and supertask of the didactic teaching.
4. Analyze the main principles of didactic teaching and studying.
5. Provide a traditional classification of the didactic teaching.
6. Name and briefly describe the External criteria for the effectiveness of the learning process.
7. Analyze the causes and main stages of development of didactic teaching.
8. Evaluate the structure of pedagogical technology. Tell in detail about types of pedagogical technologies.
9. Describe the technologies of modular training. Give examples.
10. Describe the Distance learning technology. Give examples.
11. Describe the Content of education in institutions of higher education.
12. Describe the features of normative documents defining the content of education.
13. Analyze the basic principles of the educational discipline program.
14. Provide a classification of different types of educational literature.
15. Describe organizational forms of training in higher education institutions.
16. Name and describe effective methods and technologies of education.
17. Describe Problem-oriented training as an effective technology in the formation of leadership qualities of a future specialist.
17. Provide Methodology for the development of Problem-oriented training. Give examples.
18. Describe Self-guided students' work as an effective technology in the formation of leadership qualities of the future specialist.

19. Describe Methodology for the development of Self-guided students' work.
20. Analyze interactive, innovative and information technologies of learning and various didactic systems of learning in higher education.
21. Explain the essence of students' educational activities.
22. Name and characterize the external criteria for the effectiveness of the learning process.
23. Explain the basic issues of distance learning technology.
24. Identify the main characteristics of different types and styles of learning
25. Describe Laws and External and internal Patterns of learning.
26. Analyze the structure and types of pedagogical technology.
27. Analyze the System of learning principles.
28. Describe Distance learning technology.
29. Describe The principle of modularity.
30. Describe Dogmatic teaching.
31. Describe Explanatory and illustrative teaching.
32. Identify Types of lectures and seminars in higher education institutions
33. Describe Problem-based learning.
34. Describe Reproductive learning style.
35. Describe Creative learning style.

### **Sources for trainig:**

#### **Basic literature**

1. S. Dreimane, R. Upenieks, Intersection of serious games and learning motivation for medical education: A literature review. – Research Anthology on Developments in Gamification and Game-Based Learning (2022), pp. 1938-1947
2. Features of distance learning of cloud technologies for the quarantine organisation's educational process. – J. Phys. Conf. Ser., 1840 (1) (2021, March), Article 012051.
3. Koziol-Nadolna, K. (2020). The Role of a Leader in Stimulating Innovation in an Organization. Administrative Sciences, 10(3), 59. <https://doi.org/10.3390/admsci10030059>
4. Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current

- status quo. *International Journal of Information Management*, 63, 102466. <https://doi.org/10.1016/j.ijinfomgt.2021.102466>
5. Kundi, Y. M., Aboramadan, M., Elhamalawi, E. M. I., & Shahid, S. (2021). Employee psychological well-being and job performance: exploring mediating and moderating mechanisms. *International Journal of Organizational Analysis*, 29(3), 736–754. <https://doi.org/10.1108/IJOA-05-2020-2204>
6. Rocha, I. F., & Kissimoto, K. O. (2022). Artificial intelligence and internet of things adoption in operations management: Barriers and benefits. *RAM. Revista de Administração Mackenzie*, 23(4), 1. <https://doi.org/10.1590/1678-6971/eramr220119.en>
7. Said Ahmad, Muh. I., Idrus, M. I., & Rijal, S. (2023). The Role of Education in Fostering Entrepreneurial Spirit in the Young Generation. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 93–100. <https://doi.org/10.61100/adman.v1i2.28>

### Supplementary literature

1. Li, H., Sajjad, N., Wang, Q., Muhammad Ali, A., Khaqan, Z., & Amina, S. (2019). Influence of Transformational Leadership on Employees' Innovative Work Behavior in Sustainable Organizations: Test of Mediation and Moderation Processes. *Sustainability*, 11(6), 1594. <https://doi.org/10.3390/su11061594>
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### **Information resources**

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2. <https://www.toastmasters.org/>

3. <https://www.kindrahall.com/>

4. <https://www.coursera.org/>